

# Research Notes

**Office of Research and Analysis**

RN-32, January 2007

## SAT® Writing: An Overview of Research and Psychometrics to Date

Krista Mattern, Wayne Camara, and Jennifer L. Kobrin

### Introduction

In March 2005, the College Board introduced a revised SAT® that included a writing section and discontinued use of the SAT Subject Test in Writing. To date, well over two million students have taken the new SAT, and this paper examines research and statistical results from the new writing section.

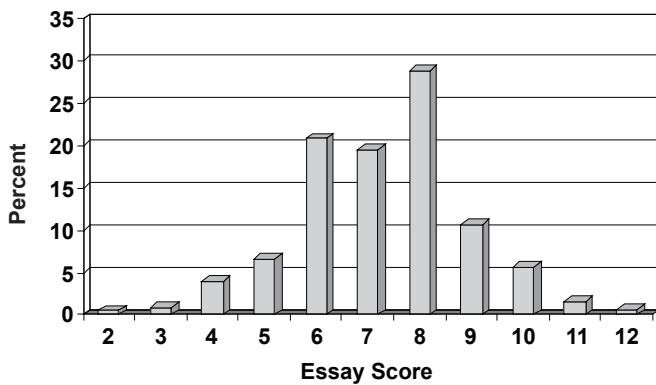
The writing section is composed of multiple-choice questions and an essay. Each form of the SAT includes a 25-minute and a 10-minute writing multiple-choice section, and a 25-minute essay. The 49 multiple-choice items are combined to produce a scaled writing subscore from 20 to 80. The essay is scored by two trained readers on a 1–6 scale; those scores are combined to produce a raw subscore of 2–12 (students can receive a score of zero under special circumstances described below). If two readers disagree by more than 1 point, the essay is sent to an expert reader to determine the final score on the 1–6 scale and this is doubled to produce a 2–12 raw subscore. The multiple-choice and essay subscores are combined to form a total score for the writing section on the 200–800 scale.

### Essay Scores

We examined all essay scores<sup>1</sup> (1,376,745) taken by students in the 2006 College-Bound Seniors cohort and found:

1. Fewer than 2,000 students (one-tenth of a percent) received a score of zero on the essay. A score of zero is given when students write in a different language, are off topic, only repeat the prompt, or leave the essay blank.

2. The mean score was 7.2 with a standard deviation of 1.7 (males, 7.1; females, 7.4), and the median score was 7.
3. Sixty-nine percent of essays received a score between 6 and 8; 80 percent of the essays received a score between 6 and 9 (see Figure 1). The distribution of essay scores on the SAT and other tests is different from typical score (or normal) distributions in that, typically, relatively few students score at the extreme ends of the scale. This is because only one prompt is used, and readers give few scores of 1 or 6.
4. The inter-rater reliability of the scores from two raters on the same essay was .77 to .81 for the 2006 College-Bound Seniors cohort. During the test administrations from October 2005 to March 2006, the average number of essays requiring a third reader ranged from approximately 2.8 percent to 4.1 percent. The alternate forms



**Figure 1.** 2006 College-Bound Seniors SAT essay score distribution.

<sup>1</sup>Essay scores are reported for all essays completed by College-Bound Seniors in 2006, not the highest essay score or total writing score, which is how other College-Bound Senior data have been reported. (For example, if a student took the SAT three times, all three scores were used in the above calculations, not just the highest score.) Also note that some students in this cohort took the SAT without writing prior to March 2005.

**Table 1**

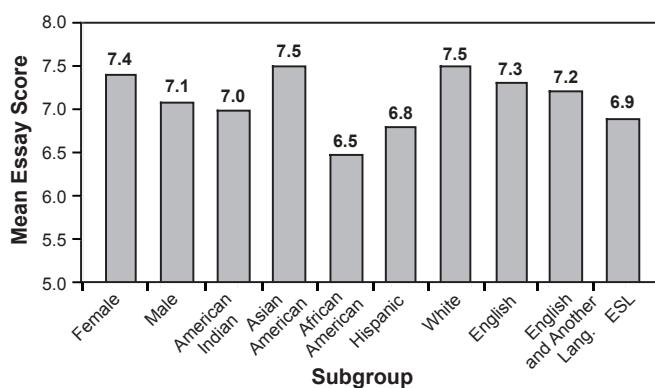
Overall Reliability of Scores for the Three SAT Sections	
SAT Scores	Reliability
Critical Reading	.91 to .93
Mathematics	.92 to .93
Writing	.86 to .92

reliability of the essay (correlation between essays for an individual student) was .67. However, the overall reliability<sup>2</sup> of the scores for the three SAT sections are significantly higher and justify their use for high-stakes admissions decisions (see Table 1).

- The distribution of scores by ethnicity reveals smaller subgroup differences than is typically found with other cognitive tests. That is, an average difference of 1.0 point on the essay between the highest and lowest scoring groups translates to a standardized difference of .59. Score gaps on the essay are smaller than score gaps on the critical reading, mathematics, or writing multiple-choice sections due to a variety of factors, such as students having to complete only one essay compared to having to complete numerous items on the other sections; relatively few 1s and 6s given; reduced scale range; etc. Standardized differences<sup>3</sup> on the essay were also computed and are reported below (see Figure 2 and Table 2).

**Table 2**

Subgroup	Mean	SD	Essay Standardized Difference
Female	7.4	1.6	0.18
Male	7.1	1.7	-0.18
American Indian	7.0	1.6	-0.12
Asian American	7.5	1.8	0.18
African American	6.5	1.6	-0.41
Hispanic	6.8	1.6	-0.24
White	7.5	1.6	0.18
English	7.3	1.6	0.06
English and Another Language	7.2	1.7	0.00
ESL	6.9	1.8	-0.18

**Figure 2.** Mean SAT essay scores by subgroups.

## Relationship Between Essay Features and SAT Writing Scores

There have been concerns that essay features that should not be related to essay scores, such as length, number of paragraphs, number of words, and quality of handwriting, result in artificially inflated scores. Even critics of the SAT writing section have acknowledged that some features like the length of an essay and number of words in an essay will correlate with an essay score, but they have insisted that the correlation on the SAT essay was significantly above what would be expected. Their claims were based on a small number of essays that were pulled from training papers to illustrate essays at each scale point and not a random sample of papers.

In 2006, we conducted a study of 6,498 essays from 14 prompts (East and West Coast) across multiple administrations. Temporary staff were hired and trained to count the number of words and paragraphs as well as to code essays on other such surface features. Researchers examined the relationship between scores and each feature. Table 3 illustrates the correlations between essay scores and SAT writing composite scores.

**Table 3**

Correlation Between Essay Features and SAT Writing Scores		
Essay Feature	SAT Essay Score	SAT Writing Score
Number of Words	0.63	0.43
Number of Paragraphs	0.38	0.26

<sup>2</sup> Reliabilities for the mathematics, critical reading, and multiple-choice writing sections were calculated using the KR-20 formula. The overall reliability of the writing section was computed by taking a weighted average of the two subsections' reliability estimates.

<sup>3</sup> For females, standardized difference is calculated as (Female Mean minus Male Mean)/Total Standard Deviation. For males, the same formula applies except the female mean is subtracted from the male mean. For all other subgroups, standardized difference is calculated as (Subgroup Mean minus Total Mean)/Total Standard Deviation.

These correlations are in line with those from other studies of essay scoring. We also found no practical difference among the mean score for papers written in the first person (6.9) compared to papers not written in the first person (7.2); cursive (7.2) versus printed (7.0); and papers using academic examples (7.4) versus personal examples (7.0). About 8 percent of papers used an obvious shell (e.g., five-paragraph essay). Additional research examining other surface and content features is under way (Kobrin et al., in preparation).

## Writing Section Score and Subgroup Differences

The mean writing section score was 497 for 2006 College-Bound Seniors compared to 503 for critical reading, and 518 for mathematics. The gender difference on the writing section was 11 points in favor of females (491 for males versus 502 for females), in contrast to mathematics and critical reading scores, where males scored higher than females. Performance on the SAT writing section by racial/ethnic group and first-language group are displayed in Figures 3 and 4.

Table 4 displays the score gap (or raw score difference), as well as the standardized difference, on the writing section by gender, race/ethnicity, and first-language group. The score gap was similar or smaller than those on the critical reading section for African American, ESL (first language other than English), and Mexican American students.<sup>4</sup> This illustrates that the addition of the writing section did not increase disparities or score differences for most racial/ethnic and language groups. American Indian, Puerto Rican, and other

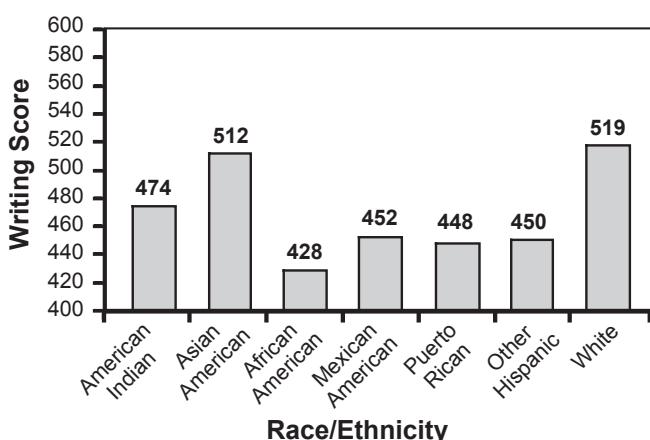
**Table 4**

Score Differences Across Gender, Race/Ethnicity, and First-Language Group

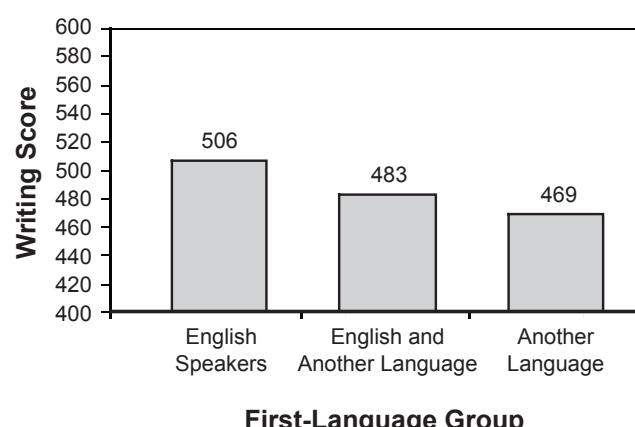
Subgroup	CR Raw Difference	W Raw Difference	CR Standardized Difference	W Standardized Difference
<b>Gender</b>				
Females	-3	11	-.03	.10
Males	3	-11	.03	-.10
<b>Race/Ethnicity</b>				
American Indian	-16	-23	-.14	-.21
Asian American	7	15	.06	.14
African American	-69	-69	-.61	-.63
Mexican American	-49	-45	-.43	-.41
Puerto Rican	-44	-49	-.39	-.45
Other Hispanic	-45	-47	-.40	-.43
White	24	22	.21	.20
<b>First Language</b>				
English Speakers	12	9	.11	.08
English and Another Language	-18	-7	-.16	-.13
Another Language	-36	-28	-.32	-.26

Hispanic groups had slightly larger differences on the writing section than on the critical reading section.

Clearly, this is only the first year of data and additional data points are needed before drawing firm conclusions about the impact of writing on subgroup differences. Yet, based on more than 1.3 million students who took the new SAT, evidence supports the claims that including the SAT writing score in admissions does not have a negative impact or increase the disparities among majority and minority groups.



**Figure 3.** Mean performance on the SAT writing section by racial/ethnic group.



**Figure 4.** Mean performance on the SAT writing section by first-language group.

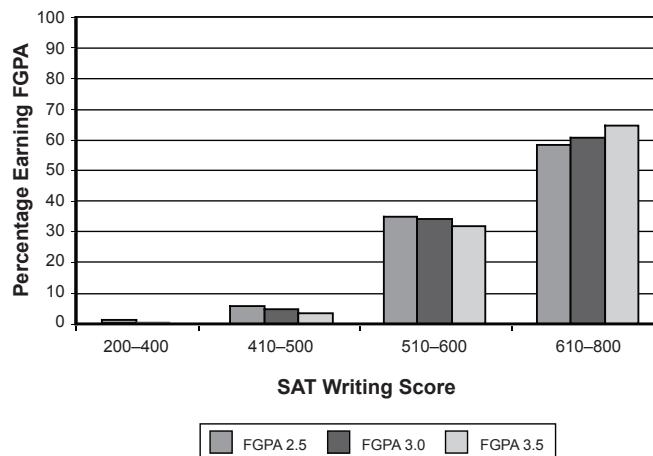
<sup>4</sup> A reduction in the raw difference does not guarantee a reduction in the standardized difference due to different standard deviations across test sections.

## Validity of Writing

Based on the data from the 2006 College-Bound Seniors cohort, we examined the relationship between the new writing section and the other sections of the SAT. As expected, writing and critical reading were more highly correlated (.85) than mathematics and critical reading (.71) and mathematics and writing (.72). For the writing subscores, the multiple-choice section and essay correlated .55. Critical reading correlated .55 with the essay and .84 with the writing multiple-choice section.

As for the predictive validity of the SAT writing section, the College Board funded two projects examining the predictive validity of SAT writing; the results are summarized below. The first study conducted by Kobrin, Camara, and Milewski (2002) found that the SAT Subject Test in Writing had greater predictive validity than the SAT Reasoning Test™ for Asian American and Hispanic students. For students at four campuses of the University of California, the SAT Subject Test in Writing had a higher validity coefficient than the SAT Reasoning Test for all racial/ethnic groups, and was the single best predictor of first-year college grade point average (FGPA) for all ethnic groups except American Indian and African American students.

The second study, by Norris, Oppler, Kuang, Day, and Adams (2006), also provides evidence for the validity of the SAT writing section. A pilot version of the SAT writing section was administered to 1,572 incoming freshmen at 13 colleges and universities. Their scores on the verbal and mathematics sections of the SAT were also obtained in order to assess the incremental validity of the SAT writing section for the prediction of FGPA and English composition grade point average (ECGPA). The results revealed that the SAT writing section correlated 0.46 with first-year college GPA and 0.32 with English composition course grades, after correcting for range restriction (see Table 5 below, which is taken directly



**Figure 5.** Percentage of students in SAT Writing Pilot Validity Study earning first-year college GPAs at different levels by SAT writing score holding constant high school GPA ( $\geq 3.7$ ) and SAT verbal + math score (1210–1400).

from Norris et al., 2006). After controlling for high school grade point average (HSGPA) and SAT mathematics and verbal scores, the incremental validity of the SAT writing section for predicting FGPA was .01.

Reanalyzing the same data set from Norris, Oppler, Kuang, Day, and Adams (2006), Figure 5 shows the percentage of students participating in the SAT Writing Pilot Validity Study with high school GPAs  $\geq 3.7$  and SAT verbal + math scores between 1210 and 1400, who earned a first-year college GPA at different levels according to their SAT writing composite score on the prototype writing test with essay. It is clearly shown that holding constant high school grades and SAT verbal and mathematics scores, SAT writing scores make a difference in the percentage of students earning higher college grades.

In sum, these results provide the first evidence for the predictive validity of the SAT writing section. The College Board is recruiting up to 100 institutions this year to participate in a valid-

**Table 5**

Weighted-Average Correlations for All Predictors with First-Year College GPA and English Composition GPA

<i>Predictor</i>	<i>FGPA</i>			<i>ECGPA</i>		
	<i>N</i>	<i>Corrected</i>	<i>Uncorrected</i>	<i>N</i>	<i>Corrected</i>	<i>Uncorrected</i>
SAT-V	1,248	0.49	0.32	891	0.30	0.20
SAT-M	1,248	0.47	0.29	891	0.23	0.10
SAT-T	1,248	0.51	0.35	891	0.28	0.17
SAT-ES	1,248	0.20	0.16	891	0.18	0.14
SAT-MC	1,248	0.45	0.30	891	0.31	0.22
SAT-W	1,248	0.46	0.32	891	0.32	0.24
HSGPA	1,248	0.43	0.38	891	0.35	0.32

Note: SAT-V=SAT verbal score, SAT-M=SAT mathematics score, SAT-T=SAT total score, SAT-ES=SAT essay score, SAT-MC=SAT writing multiple-choice score, SAT-W=SAT writing score, and HSGPA=cumulative high school grade point average.

ity study for the entering class of 2006, which is the first cohort to complete the new writing section. We will examine both the predictive and placement validity of the test scores.

## Consequential Validity

The SAT writing section was added with the intent that it would reinforce the importance of writing skills throughout a student's education, and that it would support the academic achievement of all students, bolstering their chances for academic success in college.

In collaboration with research consultant Dr. Richard Noeth, the Research and Analysis department completed a study to determine the near-term impact (or consequential validity) of the SAT writing section on K-12 education. The overall purpose of this study was twofold: (1) to learn about changes in writing instruction across the nation's K-12 education system, including changes in programs, strategies, and support over the past three years; and (2) to describe the near-term impact on K-12 education of the addition of the writing section to the SAT.

To accomplish these goals, large national samples (selected across all College Board regions) of both English/language arts high school teachers and school district curriculum directors were surveyed online in November 2006. Letters inviting participation in the surveys were e-mailed to a total of 10,918 curriculum directors (CDs) and 56,384 English/language arts (ELA) teachers. A total of 764 (7 percent) of curriculum directors and 4,888 (8.7 percent) of teachers completed the survey. Survey content focused on changes in writing attitudes and expectations, the teaching of writing, student learning related to writing, and changes in K-12 resources dedicated to writing. Preliminary results do provide support for assertions that adding writing to the SAT has increased both instructional time devoted to writing and the number of writing assignments in high school English/composition courses.

The vast majority of the survey respondents (88 percent of teachers and 93 percent of curriculum directors) reported that writing has become more of a priority in their school/district over the past three years. Respondents were asked to indicate the importance of writing to their curriculum three years ago, and today. Both ELA teachers and CDs reported that writing has become a more important part of the curriculum. The percentage indicating that writing was a very important or the most prominent part of their curriculum increased from 30-37 percent three years ago to 62-70 percent today.

Table 6 shows some selected preliminary results of the survey. Survey respondents were asked to indicate the extent to which the SAT writing section has had an impact overall, and on teacher, administrator, student, and school board attitudes; curriculum and teaching methods; student learning and performance; and resources allocated to writing. More than half of the responding ELA teachers and CDs indicated that the SAT has had at least a minor impact on all areas except for resources allocated to writing. ELA teachers were generally more inclined than CDs to indicate that the SAT writing section has had an impact. A full report of survey findings will be available by spring 2007 at [www.collegeboard.com/research/home/](http://www.collegeboard.com/research/home/).

## Writing May Help Colleges Make Better Admissions Decisions: Students with Discrepant Scores on Critical Reading and Writing

The value of adding a writing section to the SAT has been raised by some, given that most students perform similarly on critical reading and writing tests. In fact, for the 2006 College-Bound Seniors cohort, the correlation between critical reading and writing was .85. However, a high correlation does not necessitate that students who perform high or low on one test must perform similarly on the other test. Using the 2006 College-Bound Seniors cohort, we looked at the number of students who scored differently in critical reading and writing and their demographic breakdown.

In order to determine whether a student scored discrepantly on the two sections, we first standardized the scores so that they were on the same scale. Then, we classified students as discrepant if their critical reading and writing scores differed by one standard unit or more. Below is a summary of the new variables we created for the analyses. As displayed in Table 7, the difference between critical reading and writing scores (CR-Writing) had a mean of 0.00 and a standard deviation of .56, indicating that most students do perform about the same on both. However, at least one student scored 5.02 standard units higher on writing than on critical reading and another scored 4.74 standard units higher on critical reading than on writing, indicating that discrepant scores definitely occur.

## SAT Writing: An Overview of Research and Psychometrics to Date

**Table 6**

Preliminary Results of a Study on the Near Impact of the SAT Writing Section on K–12 Education

Survey Item	ELA %	CD %
Teachers' attitudes toward the importance of writing have become more positive	76	84
Administrators' attitudes toward the importance of writing have become more positive	78	90
Students' awareness of the importance of writing has become more positive	80	N/A
School boards' attitudes toward the importance of writing have become more positive	N/A	60
Teachers have higher expectations with regard to writing	85	91
Teacher-parent communications have included more discussion about writing	49	N/A
At least one new writing course has been added in their school/district	28	31
At least some additional class time has been spent on writing	80	81
More class time has been spent on writing projects, assignments, analysis, and/or writing-related activities	50	69
ELA teachers have given at least a few more in-class writing assignments	86	85
Teachers other than ELA teachers have given more in-class writing assignments	43	62
ELA teachers have given at least a few more outside-of-class writing assignments	68	67
Teachers other than ELA teachers have given more outside-of-class writing assignments	27	42
Writing has become more of a focus of the ELA curriculum	76	84
Teaching methods have included more of a focus on writing	82	N/A
Curricula in other subjects have included more of a focus on writing	37	60
Teaching methods in other subjects have included more of a focus on writing	32	N/A
Overall curriculum rigor has been increased by greater attention to writing	74	83
Writing has become more closely tied to reading	78	84
There has been more interdisciplinary collaboration	44	67
More essay tests are given across the curriculum	36	48
SAT-type essays are used	60	N/A
There has been overall improvement in students' writing skills	75	84
There has been improvement in the writing skills of underserved, ESL, and at-risk students	46	62
General writing programs have been expanded and/or implemented	29	41
Special writing programs for underserved, ESL, or at-risk students have been expanded and/or implemented	39	44
More resources have been allocated to writing	34	57
There has been more professional development in writing	64	85
Teachers have been given more dedicated time to grade writing assignments	7	14
There have been expanded and/or new writing proficiency requirements in the district	N/A	59

In order to determine how many students had discrepant scores, we took the absolute difference between one's critical reading score and writing score ( $|CR-Writing|$ ) and found that 99,692 students had a discrepant score of 1 standard unit or higher. In order to determine how many students were

better at writing and how many were better at critical reading, we took the difference between each student's critical reading score as compared to his or her writing score in standard units. A negative value indicates that the student scored higher on writing than on critical reading, whereas a positive value indicates that the student scored higher on critical reading than on writing. We found that 49,356 students scored 1 or more standard units higher on writing than on critical reading and 50,336 students scored 1 or more standard units higher on critical reading than on writing.

Next, we looked to see whether individuals with discrepant scores differed in terms of HSGPA, gender, and race/ethnicity. Table 8 shows that the mean HSGPA was highest for the "Better at Writing" group and lowest for the "Better

**Table 7**

Comparison of Critical Reading and Writing Scores to Determine Discrepancies

Test	Minimum	Maximum	Mean	SD
Critical Reading (Standardized)	-2.70	2.63	0.00	1.00
Writing (Standardized)	-2.73	2.79	0.00	1.00
CR-Writing	-5.02	4.74	0.00	0.56
$ CR-Writing $	0.00	5.02	0.44	0.34

**Table 8**

Score Discrepancy	Mean HSGPA	SD	F	p-value
Better at Writing	3.38	0.63	786.5	<0.001
Same on Both	3.33	0.63		
Better at Critical Reading	3.22	0.66		

at Critical Reading” group. A one-way analysis of variance (ANOVA) with planned contrasts revealed significant differences among all three groups.

As for gender, Figure 6 shows that almost twice as many females (31,005) were categorized as “Better at Writing” than were males (18,351). Similarly, almost twice as many males (31,694) were categorized as “Better at Critical Reading” than were females (18,642). This is not surprising given that females scored 11 points higher than males on writing and males scored 3 points higher than females on critical reading.

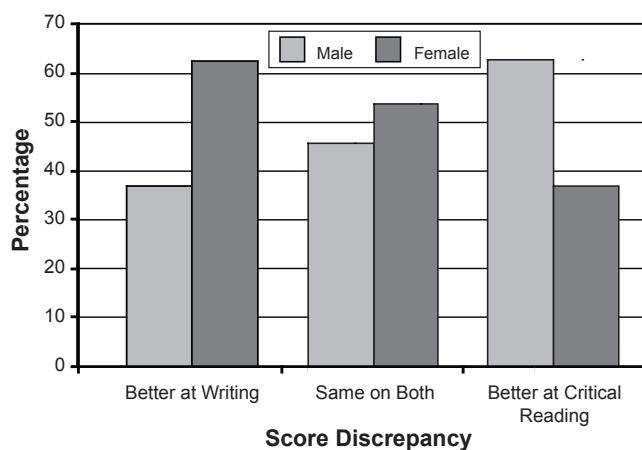
In terms of ethnicity, Table 9 and Figure 7 demonstrate that the percentage of white students and American Indian/Alaska Native students is higher in the “Better at Critical Reading” category, whereas the percentage of Asian, Asian American, or Pacific Islander students is higher in the “Better at Writing” category. All other racial/ethnic groups are roughly the same across categories.

## Coachability of the Essay

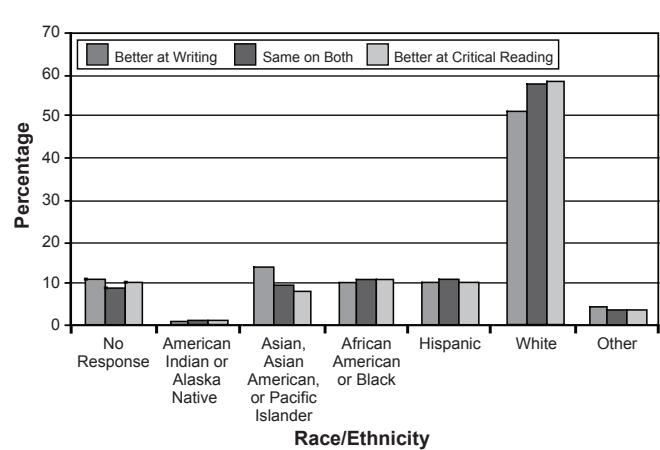
When it was decided to add a writing component to the new SAT, many concerns were raised about the coachability of essays. In order to ensure the integrity of the test, it was

**Table 9**

Ethnicity	Better at Writing		Same on Both		Better at Critical Reading	
	N	%	N	%	N	%
No response	5,336	10.81	112,047	8.78	4,941	9.82
American Indian or Alaska Native	241	0.49	8,075	0.63	437	0.87
Asian, Asian American, or Pacific Islander	6,840	13.86	117,081	9.17	3,833	7.61
African American or Black	4,960	10.05	133,100	10.43	5,238	10.41
Hispanic	5,038	10.21	135,556	10.62	5,114	10.16
White	24,841	50.33	724,807	56.77	29,010	57.63
Other	2,100	4.25	46,024	3.60	1,763	3.50
Total	49,356	100	1,276,690	100	50,336	100



**Figure 6.** Gender makeup of score discrepancy categories.



**Figure 7.** Racial/ethnic makeup of score discrepancy categories.

In the first part of the study, subject-matter experts (SMEs) developed a nine-hour coaching program in which they examined previous essays and determined what features of the essays resulted in higher scores. With that information, they developed strategies and rules for constructing a high-scoring essay. Finally, they compared their coaching program to that of professional test-preparation companies and found that there was substantial overlap in material, thus giving credence to their newly developed program.

In the second part of their study, they recruited 99 University of Minnesota freshmen (77 percent female, 77 percent white) and randomly assigned them to either the coaching group (treatment) or the control group. All participants completed two essay prompts, which were taken from the College-Level Examination Program® (CLEP®), as a pretest measure of writing ability, and provided self-reported SAT/ACT scores. The control group participants came back the next day and completed two more CLEP essay prompts and two other writing tasks. The treatment group attended the coaching program over the next two days and on the fourth day, completed two more CLEP essay prompts and two other writing tasks. All CLEP essays were scored by trained CLEP graders, and the additional writing tasks were scored by the SMEs.

After controlling for pretest performance and admissions test scores, the treatment variable (training versus control) was a significant predictor of posttest scores and generalizability scores. That is, training did significantly improve scores on both outcomes. It should be noted that the effect was not very large, with pretest scores being a much stronger predictor of posttest performance than training. Furthermore, the training group's mean scores increased by only 0.11 on a 6-point scale, whereas the control group's mean scores decreased by 0.11 on a 6-point scale from pretest to posttest. There was also a significant interaction between group membership and pretest scores on posttest performance, with training typically helping those who had low pretest scores and hindering those with high pretest scores. In sum, coaching did increase performance in the posttest prompts and in other writing tasks. These results suggest that writing samples on the SAT are susceptible to coaching, but score increases may reflect at least some improvement in overall writing ability.

Two additional studies have been proposed to further investigate the effects of coaching on test scores. The purpose of the first study is to determine the impact on SAT scores when students have participated in *The Official SAT Online Course™*, which is offered through the SAT Readiness Program™. That is, we want to answer the question, "What is the average SAT score

change for students at schools participating in *The Official SAT Online Course* compared to a matched control group?" The purpose of the second study is to determine the use of a variety of programs, resources, and approaches designed to prepare students for the SAT, and to examine the relationship of these preparation activities to score changes. The research questions for this study are as follows:

1. To what extent do various test-preparation approaches affect SAT scores?
2. Are there features of the test that are sensitive to different approaches?
3. How do products/services from different providers in a single category affect scores?
4. How do products/services from different providers in different categories affect scores?

In order to test these research questions, we will survey a nationally representative sample of SAT takers (juniors and seniors) to determine how students are preparing for the SAT, the amount of time they estimate partaking in each preparation activity, and the provider of the type of preparation. Then, we will compare score changes on the different sections and features of the SAT by type of preparation, as well as compare the effects of products/services from a single preparation category from different providers on scores and the effects of products/services from different providers in different preparation categories on scores.

## DISCUSSION

In preparation for the launch of the new SAT, the College Board, in addition to external researchers, has conducted and continues to conduct studies assessing the psychometric quality and impact of the new writing section. The focus of this research note is to summarize the research that has been conducted thus far on the new writing section. The evidence provided herein reveals that the new writing section has satisfactory psychometric quality in that its reliability is acceptable; it is significantly related to first-year college GPA and college English grades; it has been perceived to impact high school curriculum; and it does not result in larger score disparities among racial/ethnic groups. However, much of the research described above is based on individual studies and may not generalize to the total test-taking population, and there are still numerous research questions left unanswered. Furthermore, since this is the first year in which the new SAT was administered, we are limited in what we can say about its predictive validity since the students are just now entering

college. As data on the SAT Reasoning Test continue to accumulate, we will continue to monitor and assess the psychometric quality of the new SAT writing section and its impact on educational practices and policies.

*Krista Mattern is an assistant research scientist at the College Board.*

*Wayne Camara is vice president of research and analysis at the College Board.*

*Jennifer L. Kobrin is a research scientist at the College Board.*

## References

College Board. (2006). *College-Bound Seniors: Total Group Profile Report*. New York: The College Board.

Hardison, C. M., & Sackett, P. R. (2006). *Use of writing samples on standardized tests: Susceptibility to rule-based coaching and the resulting effects on score improvement*. Manuscript submitted for publication.

Kobrin, J., Camara, W., & Milewski, G. (2002). *The utility of the SAT I and SAT II for admissions decisions in California and the nation* (College Board Research Report No. 2002-6). New York: The College Board.

Kobrin, J., Deng, H., & Shaw, E. (in preparation). *Features of responses that are associated with scores on the SAT essay*.

Norris, D., Oppler, S., Kuang, D., Day, R., & Adams, K. (2006). *The College Board SAT writing validation study: An assessment of predictive and incremental validity* (College Board Research Report No. 2006-2). New York: The College Board.





Office of Research and Analysis  
The College Board  
45 Columbus Avenue  
New York, NY 10023-6992  
212 713-8000

**The College Board: Connecting Students to College Success**

The College Board is a not-for-profit membership association whose mission is to connect students to college success and opportunity. Founded in 1900, the association is composed of more than 5,200 schools, colleges, universities, and other educational organizations. Each year, the College Board serves seven million students and their parents, 23,000 high schools, and 3,500 colleges through major programs and services in college admissions, guidance, assessment, financial aid, enrollment, and teaching and learning. Among its best-known programs are the SAT®, the PSAT/NMSQT®, and the Advanced Placement Program® (AP®). The College Board is committed to the principles of excellence and equity, and that commitment is embodied in all of its programs, services, activities, and concerns. For further information, visit [www.collegeboard.com](http://www.collegeboard.com).

© 2007 The College Board. All rights reserved. College Board, Advanced Placement Program, AP, CLEP, College-Level Examination Program, SAT, and the acorn logo are registered trademarks of the College Board. connect to college success, SAT Readiness Program, SAT Reasoning Test, and The Official SAT Online Course are trademarks owned by the College Board. All other products and services may be trademarks of their respective owners. Visit the College Board on the Web: [www.collegeboard.com](http://www.collegeboard.com).

Permission is hereby granted to any nonprofit organization or institution to reproduce this report in limited quantities for its own use, but not for sale, provided that the copyright notice be retained in all reproduced copies as it appears in this publication.